

2.

What are my options?

In Year 11 students choose one of the following:

- No mathematics
- Mathematics Standard
- Mathematics Advanced (often called 2 Unit Maths)
- Mathematics Extension 1 (often called 3 Unit Maths).

Mathematics Standard is designed for those students who want to extend their mathematical skills beyond Stage 5 but are not seeking the in-depth knowledge of higher mathematics. Mathematics Standard offers students the opportunity to prepare for a wide range of educational and employment aspirations, including continuing their studies at a tertiary level when Standard 2 is chosen in Year 12.

Mathematics Advanced and Extension 1 are calculus based courses, and are intended for students more able at mathematics. The study of calculus provides access to future study in the sciences, engineering and economics, amongst other career options.

3.

Why should I do Mathematics?

- Enhances numeracy skills necessary for future vocational and career opportunities.
- Develops critical and higher order thinking.
- Develops problem solving skills.

Important Advice

Students intending to undertake tertiary studies should check pre-requisites for specific courses.



Mathematics

**MATHEMATICS STANDARD,
ADVANCED & EXTENSION 1**



COFFS HARBOUR
SENIOR COLLEGE

1.

Which course?

MATHEMATICS STANDARD

This course is an alternative to the more formal and abstract Mathematics Advanced Course. It is suitable for those students who have satisfied the outcomes of Maths Stage 5.1 or Maths Stage 5.2 in Year 10. It is also for those students who did Maths Stage 5.3 (Advanced) but who do not need calculus based mathematics for later tertiary studies.

Students who select Mathematics Standard study a common Year 11 course, before having an option of doing Standard 1 or Standard 2 in Year 12. Standard 1 has an optional HSC exam.

Topics Covered:

Financial Mathematics, Algebra, Measurement, Statistical Analysis and Networks.



MATHEMATICS ADVANCED

Mathematics Advanced is a challenging and demanding calculus based course. Students attempting this course should possess above average mathematical ability and a solid work ethic. It is expected that only students who have done Stage 5.3 in Year 10, or were at the top of Stage 5.2, will pick this course.

To be successful in this course it is imperative that students complete all set homework, regularly attempt additional revision questions and prepare thoroughly for all assessment tasks.

Some University courses stipulate the Mathematics Advanced course as a minimum recommended level of achievement required.

Topics Covered:

Functions, Trigonometric Functions, Calculus, Exponential and Logarithmic Functions, Statistical Analysis and Financial Mathematics.

MATHEMATICS EXTENSION 1

Mathematics Extension 1 is a 1 unit subject. Students who wish to do Mathematics Extension 1 must also be doing Advanced Mathematics, which is a 2 unit course, making a total of 3 units of mathematics altogether in Year 11.

Advanced Mathematics needs to be selected on the appropriate line as indicated on the Line Sheet (see Enrolment Package), with Extension being selected on Line 8.

This course is designed for those students who were very successful at Stage 5.3 in Year 10, and who may wish to pursue a university course which requires a strong mathematical background.

Students who are successful with the Mathematics Extension 1 in Year 11 may have the option to study Mathematics Extension 2 in Year 12.

Extension Topics Covered:

Functions, Trigonometric Functions, Calculus, Combinatorics, Proof, Vectors and Statistical Analysis.